

REMARKS

Claims 1-9 and 11-14 remain pending in the application after the cancellation of claim 10. Claims 1-7 have been allowed. Claims 8 and 13 have been amended herein. Applicants respectfully submit that this Amendment does not raise new issues that would require further consideration and/or search, and this Amendment also does not raise the issue of new matter, since the amendment to claim 8 merely incorporates the limitations of now-cancelled claim 10, and since the amendment to claim 13 incorporates a feature similar to the feature added to claim 8. Applicants respectfully submitted that this Amendment places the application in better form for appeal by materially reducing or simplifying the issues for appeal, by canceling claim 10 and incorporating its limitations into independent claim 8. Entry of the foregoing amendments to claims 8 and 13 is therefore requested.

Claims 8-14 have been finally rejected under 35 USC §103(a) as being unpatentable over Poisner (U.S. Patent No. 6,012,154, hereinafter Poisner) in view of Kadnier, Windows NT 4: The Complete Reference (hereinafter Kadnier). "The Examiner maintains the rejection from the previous Office Action, paper no. 23, mailed February 11, 2004."

Amended independent claim 8 recites, in relevant parts, a "safety device for a stored-program control coupling a computer bus system with a peripheral bus system" to which a peripheral is connected, the safety device comprising: "a **central controller** for exchanging data with the stored-program control, the stored-program control continually executing an SPS program on a real-time operating system, the stored-program control exchanging data, via the peripheral bus system, with a peripheral to be controlled; and a monitor for monitoring a wake-up signal generated by the stored-program control and transmitted to the monitor by the **central controller**, wherein the monitor activates, as a function of the wake-up signal, a **bus controller**, which controls a data transport via the peripheral bus system." Amended independent claim 13 recites, in relevant parts, a "safety device for a stored-program control coupling a computer bus system with a peripheral bus system" to which a peripheral is connected, the safety device comprising: "a **central controller** for

exchanging data with the stored-program control, the stored-program control continually executing an SPS program on a real-time operating system, the stored-program control exchanging data, via the peripheral bus system, with a peripheral to be controlled, wherein a bus controller controls a data transport via the peripheral bus system; and an interface for receiving at least one control signal forwarded to the stored-program control via the central controller."

In support of the rejection, the Examiner "maintains that a controller for exchanging data with the processor is inherent to the system of Poisner" because the expansion bus bridge has "ability to move data from one bus to another." (7/21/04 Final Office Action, p. 3). The Examiner further contends that since the "bus bridge acts as a means to pass data, . . . it controls the data it receives." (7/21/04 Final Office Action, p. 3).

Regarding the Examiner's assertion that a controller for exchanging data with the processor (alleged equivalent of the stored program control) is inherent to the system of Poisner because the expansion bus bridge has "ability to move data from one bus to another," Applicants initially note that the Examiner is attempting to define the term "controller" as used in the present application, without any attempt to reconcile the asserted definition with the Applicants' invention. Furthermore, even if one assumes for the sake of argument that the Examiner's assertion were correct (with which assumption Applicants do not agree), Applicants note that the allegedly inherent "controller" of Poisner (i.e., inherent to the expansion bus bridge as asserted by the Examiner) would be, at best, equivalent to "a bus controller, which controls a data transport via the peripheral bus system" as recited in claim 8 (and as similarly recited in claim 13), and nothing in Poisner teaches or suggests a separate "central controller for exchanging data with the stored-program control, the stored-program control continually executing an SPS program on a real-time operating system, the stored-program control exchanging data, via the peripheral bus system, with a peripheral to be controlled."

Independent of the above, Applicants note that nothing in Poisner teaches or suggests "a monitor for monitoring a wake-up signal generated by the stored-

program control and transmitted to the monitor by the central controller, wherein the monitor activates, as a function of the wake-up signal, **a bus controller, which controls a data transport via the peripheral bus system,**” as recited in amended claim 8.

Furthermore, with respect to claim 13, nothing in Poisner teaches or suggests “an interface for receiving at least one control signal forwarded to the stored-program control via the central controller.” While the Examiner contends that the expansion bus of Poisner is equivalent to the claimed “interface,” Applicants note that the expansion bus of Poisner would be, at best, equivalent to the “peripheral bus” as recited in claim 13, and nothing in Poisner teaches or suggests a separate interface that is additional to the expansion bus, let alone teach or suggest “an interface for receiving at least one control signal forwarded to the stored-program control via the central controller.”

Regarding the Examiner’s assertion (2/11/04 Office Action, p. 5) that “[i]n column 2, lines 31-52 and in Figure 2, Poisner discloses an operating system-related software agent **running on a processor that is separate from the processor** (the stored-program control),” Applicants respectfully note that this assertion clearly contradicts the Examiner’s contention that Poisner teaches a processor that is equivalent to the claimed “stored-program control.” Claims 8 and 13 recite, in relevant parts, “a central controller for exchanging data with the stored-program control, **the stored-program control continually executing an SPS program on a real-time operating system.**” According to claims 8 and 13, the “stored-program control” that exchanges data with the “central controller” is the same element that executes “an SPS program on a real-time operating system.” However, according to the Examiner’s assertion, the processor that executes an operating system-related software agent is **separate** from the stored-program control in Poisner, which means the stored-program control in Poisner doesn’t “continually execute an SPS program on a real-time operating system,” as recited in claims 8 and 13.

Since the Kadnier reference merely gives an overview of “real-time systems” and fails to cure the deficiencies of the Poisner reference discussed above in

connection with independent claims 8 and 13, it is respectfully submitted that the combination of Poisner and Kadnier references does not render obvious independent claims 8 and 13. Similarly, the combination of Poisner and Kadnier references fails to render obvious dependent claims 9, 11-12 and 14. Withdrawal of the rejection of claims 8, 9 and 11-14 under 35 USC §103(a) is therefore respectfully requested.

CONCLUSION


In light of the above discussion, Applicants respectfully submit that the present application is in all aspects in allowable condition, and earnestly solicit favorable reconsideration and early issuance of a Notice of Allowance.

The Examiner is invited to contact the undersigned to discuss any matter concerning this application. The Office is authorized to charge any fees under 37 C.F.R. §§1.16 or 1.17 related to this communication to Deposit Account No. 11-0600.

Respectfully submitted,

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